

Minutes of the Carlisle Board of Health June 23 2015

Bills
Administrative Reports
Benfield Farms Development – FAST System

NEW BUSINESS

The meeting was called to order by the Chairman at 7:00 pm at town hall. Present were Board members Bill Risso (Chairman), Lee Storrs, Catherine Galligan, Todd Thorsen, and Donna Margolies. Also present Linda Fantasia, Health Agent.

MINUTES – tabled to next meeting.

BILLS – Staff payrolls. **It was moved (Galligan) and seconded (Margolies) to approve the invoices as presented for payment. Motion passed 5-0-0.** The Board also approved the payroll changes for FY16 for Fantasia and Lyman.

ADMINISTRATIVE REPORTS – June 23, 2015

Payroll Change Forms – the Board signed off on FY16 pay rates for Fantasia and Lyman.

Vacation Schedule – Risso 6/29-7/13; Margolies 7/5-7/12; Fantasia 7/20-7/24.

Mass. Health Officers (MHOA) Legal Training Workshop – Risso attended the workshop and summarized the highlights: owner must give permission to inspect; it must be a verbal request at the time of inspection; permission can be revoked at any time; committee appointments should have an expiration, typically one year; threatening arrest is coercion; compliance should be prompt and well defined; notify a third party – insurance agency, lender – would be considered coercion; order should avoid non-related issues.

Old Home Day – Galligan volunteered to work the booth with Fantasia. Other Board members will stop by.

Benfield Farms Development – Present: Alan Lehotsky (Carlisle Housing Authority, Mike Moreau (Waste Treatment Services WTS), Phil Giffie (NOAH), Mark Beaudry (Meridian Engineering), Susan Curreri (Peabody Management), and Benfield residents Cathy Scalia, Dolores Lowney, Warren Brown.

The Board had asked for the meeting in order to evaluate the current functioning of the FAST System and in response to general complaints from residents. Moreau provided the Board with a summary of the test results for the FAST System. The summary included influent and effluent results from 6/10/14 through 6/17/15 for Total Suspended Solids (TSS), Biological Oxygen Demand (BOD), Nitrate-nitrogen (NO₃), Nitrite-nitrogen (NO₂), Ammonia-nitrogen (NH₃), Total Kjeldahl nitrogen (TKN), Total Nitrogen (TN), Alkalinity and pH. Testing for Ammonia and Alkalinity were done when there was a problem. All of the samples were grab samples. The system has not been able to obtain its nitrification goal. There was a problem with the system in October which required a second start up. Bacteria will give off its own heat but there needs to be a certain level of biological mass for this to occur. Extreme cold temperatures affected the bacterial growth in December and January. There is little biological activity that can happen below 41°. It took until March for the wastewater temperature to reach 50°. Test results now show that the system is headed in the right direction but it has yet to meet its full potential. The state has a 25 mg/l of nitrogen limitation; Carlisle has 20 mg/l. These have not always been achieved. Moreau would like to see results in the 12 to 13 mg/l range as a safety factor.

The ammonia-nitrogen levels remain a puzzle. Moreau is questioning whether quaternary-ammonium compounds are being introduced into the system and interfering with the conversion process. The system is designed to accommodate a certain amount of ammonia-nitrogen but the numbers are still too high. This needs further investigation. Moreau reported that Benfield has educated residents on safe cleaners and disinfectants and only green products are used. Moreau is pleased that there are no high levels of nitrite compared to earlier testing. He is confident that the system is beginning to do its job and just needs more time. It would be good to have more data points. Possible courses of action that might accelerate functioning include a carbon feed for bacterial growth (usually not done for systems less than 10,000 gpd), reviewing the Material Safety Data Sheets of products being used by Benfield and obtaining more data points. Although the daily flows are less than half of the system capacity, this is not a contributing factor. The Board agreed that the system has a water chemistry issue that needs to be resolved.

Risso said the Board would like to see the daily flows, complete information provided in an easy to read spreadsheet format that includes the maximum allowable limits and most importantly that the Board be notified of an exceedance with 24 hours of identification. This is a condition of the permit but was not followed. If the Board is aware of a problem it can decide what action needs to be taken and when. It was not until the Board started to get complaints about odors from residents and townspeople that the Board learned of the current problems. The Board would have liked to have the monitoring wells checked following the high than expected January test results. The monitoring wells are intended as an early detection system for identifying a problem with the system before it impacts groundwater. Beaudry was not concerned that the wells were not immediately tested. It takes time for pollutants to work through groundwater. There was sufficient time to get the quarterly testing done. It also takes time following start up to get dependable readings from the wells.

Galligan said that some of the numbers on the chart do not make sense. Moreau agreed that there could be incorrect entries. He will review them. High levels may also be the result of the timing of the test. TSS will be higher if the sample is drawn just after the recycle phase because of agitation. Moreau noted that WTS has been testing the influent. It is not a requirement of the permit. All parameters will be tested again in June, July and August. This should provide a better picture of system functioning. Moreau will incorporate the new results into the spreadsheet and send a draft template for the Board's approval. The maximum allowable level for each test will be shown.

Risso said the DEP approval for the FAST system states that the system should be completely functional in 30 days from start-up. It has been over a year. The Board has not yet issued a Certificate of Compliance for the system because of the problems. The Board wants a specific timeframe for obtaining the Certificate. Moreau said this might be difficult. Addressing the nitrogen levels is very complicated. He could not guarantee that the system would be ready for a Certificate in 30 days. There are many things to consider including cleaning products in use.

Giffey said Benfield hired a new cleaning company and purchases the cleaning products. NOAH and Peabody have done a lot to address resident concerns over the last few months. Galligan said she is researching safe cleaning products in her work and does not recommend Quaternary ammonium compounds which may cause respiratory distress. She cautioned that labels need to be read carefully to avoid sensitizing ingredients. Thorsen said medications particularly broad spectrum antibiotics that are eliminated in waste can harm the biological function of a system. Low flow toilets contribute to an increase in toxicity because of lack of dilution. Galligan offered to share her information on safe products with Curreri.

Beaudry said there are no longer any odors except the earthy odors at the pump house which would be expected. The manhole covers have all been sealed with rubber gaskets. Fantasia said she and Rob Frado noticed odors in the parking lot when they were at the site last week. The Board has discussed the installation of a Biovent system as one solution. The system would require regular maintenance to work properly. Beaudry said there is room to install one. Approximately 30' of trench would be required. It could be configured into separate lines.

The Board noted that the Provisional Approval for the FAST expires in August. Moreau did not expect any problems getting it renewed. Moreau said WTS has worked with other sites that experienced difficult start-ups. Once the problem is identified, there is usually a solution. It is just taking longer to identify the problem at Benfield. Thorsen suggested that mass spectrometry would identify the amount and type of all of the chemicals in a sample.

instead of doing them one by one. Moreau would prefer to isolate the ammonia and hopefully identify the causative agent for the difficulties. Risso was willing to wait for July test results and 24 hour notice to the Board if there is an exceedance.

Lehotsky felt the system was oversized as a result of local regulations. He believes there is a sufficient safety margin in the state code. He claimed that large systems simply do not get enough flows to function properly, so the Board is going in the wrong direction by oversizing large systems.

Giffie said NOAH has been sensitive to the concerns raised by residents. The first year of a new building is often difficult. NOAH and Peabody now have a good sense on how to keep everything operating smoothly. Barnett said NOAH has been offering quarterly meetings with residents. There is also a 24-hour phone line.

Brown said he was speaking on behalf of the other residents who are grateful that steps are finally being taken to deal with the issues. For over a year their homes have been impacted by odors, lack of rubbish removal, and various other problems. Bringing complaints to NOAH did not result in improvements. Meetings were more like propaganda sessions and residents did not feel comfortable speaking up. The Board of Health was the only town department to take an interest and they are truly appreciative. Risso said the Board is always willing to hear about problems but residents should be talking with the proper parties such as the Housing Authority which has more control over the property.

Risso brought up the rubbish complaint. Giffie said there was one time when it was not picked up. This has been corrected. Lehotsky said another time the dumpster was full of furniture. Risso said another complaint involved odors from the drain in the first floor trash room. The trap had no water. Curreri said this should be easy to fix and maintenance will be advised. The Board agreed to wait until the end of the summer to make a decision on whether to require a Biovent.

Fantasia mentioned that there were earlier complaints about water quality. These seem to have been resolved. The Board was concerned about sodium which was 73.1 mg/l in April in the wastewater. The raw well water had 12 mg/l of sodium when tested in 2012. The latest finished water result was 38 mg/l which is acceptable for treated water. Small Water Systems Services (SWS) submitted a report to the Board on all of the test results. They believe that the quality is now excellent and do not expect further problems. The only issue is the sampling locations. Initially the monthly bacteria testing included three residences. Currently tests are only done in the pump house, community room and raw well. Fantasia will check with SWSS.

It was moved (Storrs) and seconded (Thorsen) to issue a Temporary Certificate of Compliance for Benfield Farms, 575 South Street, Carlisle, MA until September 30, 2015. Motion passed 5-0-0.

There was no further business. Meeting voted to adjourn at 8:50 p.m.

Respectfully submitted,

Linda M. Fantasia
Recorder